1. (Previously Presented) A process for determining statistically-outlying data points

present in at least one dataset, comprising:

    a)   receiving the at least one dataset;

    b)   determining at least one interval associated with the dataset;

    c)   using a hardware processing arrangement which comprises a processor,

determining a plurality of subintervals of the at least one interval by repeatedly dividing

the at least one interval until at least one predetermined criteria is met; and

    d)   determining the statistically-outlying data points present in the at least one

dataset based on information related to the subintervals, wherein each particular data

point of the statistically-outlying data points is (i) associated with a particular subinterval

of the subintervals, and (ii) determined as a function of a length of the particular

subinterval of the subintervals associated with the particular data point.

2. (Previously Presented) The process of claim 1, wherein the at least one dataset

comprises data associated with levels of gene expression obtained under at least two

different conditions.

3. (Previously Presented) The process of claim 2, wherein the different conditions

reflect an occurrence of at least one of a physiological process, a pathophysiological

process, an oncogenic process, a mutational process, a pharmacologically-induced

process, an immuno-precipitation-induced process, or a developmental process.

Claims 4-24 (Cancelled).

25. (Currently Amended) A non-transitory storage medium which includes thereon a software arrangement to be executed by a hardware processing arrangement for determining statistically-outlying data points present in at least one dataset, the software arrangement comprising:

a)   a first set of instructions operable to configure the processing arrangement to receive the at least one dataset;

b)   a second set of instructions operable to configure the processing arrangement to determine at least one interval associated with the dataset;

c)   a third set of instructions operable to configure the processing arrangement to determine a plurality of subintervals of the at least one interval by repeatedly dividing the at least one interval until at least one predetermined criteria is met; and

d)   a fourth set of instructions operable to configure the processing arrangement to determine the statistically-outlying data points present in the at least one dataset based on information related to the subintervals, wherein each particular data point of the statistically-outlying data points is (i) associated with a particular subinterval of the subintervals, and (ii) determined as a function of a length of the particular subinterval of the subintervals associated with the particular data point.

26. (Previously Presented) The storage medium of claim 25, wherein the at least one dataset comprises data associated with levels of gene expression obtained under at least two different conditions.

27. (Previously Presented) The storage medium of claim 26, wherein the different conditions reflect the occurrence of at least one of a physiological process, a pathophysiological process, an oncogenic process, a mutational process, a pharmacologically-induced process, an immuno-precipitation-induced process, or a developmental process.

Claims 28-36 (Cancelled).

37. (Previously Presented)   A system for determining statistically-outlying data points present in at least one dataset, comprising:

a hardware processing arrangement which includes a processor and which is operably configured to:

a)   receive the at least one dataset;

b)   determine at least one interval associated with the dataset;

c)   determine a plurality of subintervals of the at least one interval by repeatedly dividing the at least one interval until at least one predetermined criteria is met; and

d)   determine the statistically-outlying data points present in the at least one dataset based on information related to the subintervals, wherein each particular data point of the statistically-outlying data points is (i) associated with a particular subinterval of the subintervals, and (ii) determined as a function of a length of the particular subinterval of the subintervals associated with the particular data point.

38. (Previously Presented) The system of claim 37, further comprising a further hardware processing arrangement configured to generate the at least one dataset, wherein the further hardware processing arrangement comprises a further processor.

39. (Original) The system of claim 38, further comprising a detector configured to detect a plurality of signals indicative of gene expression and convert the detected signals into the at least one dataset.

40. (Withdrawn) The method of claim 1, wherein the at least one data set comprises data associated with financial trends.

41. (Withdrawn) The software arrangement of claim 13, wherein the at least one data set comprises data associated with financial trends.

42. (Withdrawn) The storage medium of claim 25, wherein the at least one data set comprises data associated with financial trends.

43. (Previously Presented) The process of claim 1, further comprising: at least one of displaying or storing the statistically-outlying data points in a storage arrangement in at least one of a user-accessible format or a user-readable format.

Claim 44 (Cancelled).

45. (Previously Presented) The storage medium of claim 25, wherein the software arrangement further comprises: a further set of instructions operable to configure the processing arrangement to at least one of display or store the statistically-outlying data points in a storage arrangement in at least one of a user-accessible format or a user-readable format.

46. (Previously Presented) The system of claim 37, wherein the processing arrangement is further operably configured to at least one of display or store the statistically-outlying data points in a storage arrangement in at least one of a user-accessible format or a user-readable format.

47. (Previously Presented) The process of claim 1, wherein at least one of the at least one predetermined criteria is a function of a portion of the dataset being contained in one of the subintervals.

48. (Previously Presented) The process of claim 47, wherein the data set comprises a total number of points, and wherein at least one of the at least one criteria is a function of a predetermined ratio of the statistically-outlying points to the total number of points.

49. (Previously Presented) The process of claim 1, wherein the subintervals are determined based on a dyadic grid division procedure.

50. (Previously Presented) The process of claim 1, wherein each of the statistically-outlying data points is further determined as a function of a distance of each point to a principal axis of the dataset.

51. (Previously Presented) The process of claim 1, wherein each particular subinterval of the subintervals comprises a respective region having a height, wherein the height is determined as a function of the length of the subinterval, and wherein each of the statistically-outlying data points is located outside of the respective region of the particular subinterval with which the statistically-outlying data point is associated.

52. (Previously Presented) The process of claim 51, wherein at least one of the at least one predetermined criteria is based on the number of points located within each region being below a predetermined threshold.

53. (Previously Presented) The process of claim 51, wherein the at least one dataset comprises a total number of points, wherein each particular subinterval of the subintervals comprises a total number of points, and wherein at least one of the at least one criteria is based on a constraint that a ratio of a number of points located outside each region to the total number of points in the particular subinterval exceeds a ratio of the number of statistically-outlying points in the dataset to the total number of points in the at least one dataset.

54. (Previously Presented) The process of claim 51, wherein at least one of the at least one predetermined criteria is based on an average distance of the total number of points located in each of the regions to a principal axis of the at least one dataset.

55. (Previously Presented) The storage medium of claim 25, wherein at least one of the at least one predetermined criteria is a function of a portion of the at least one dataset being contained in one of the subintervals.

56. (Previously Presented) The storage medium of claim 55, wherein the at least one dataset comprises a total number of points, and wherein at least one of the at least one predetermined criteria is a function of a predetermined ratio of the statistically-outlying points to the total number of points.

57. (Previously Presented) The storage medium of claim 25, wherein the subintervals are determined based on a dyadic grid division procedure.

58. (Previously Presented) The storage medium of claim 25, wherein each of the statistically-outlying data points is further determined as a function of a distance of each point to a principal axis of the at least one dataset.

59. (Previously Presented) The storage medium of claim 25, wherein each particular subinterval of the subintervals comprises a region having a height, wherein the height is determined as a function of the length of the subinterval, and wherein each of the

statistically-outlying data points is located outside of the region of the particular subinterval with which the statistically-outlying data point is associated.

60. (Previously Presented) The storage medium of claim 59, wherein at least one of the at least one predetermined criteria is based on the number of points located within each of the regions being below a predetermined threshold.

61. (Previously Presented) The storage medium of claim 59, wherein the data set comprises a total number of points, wherein each particular subinterval of the subintervals comprises a total number of points, and wherein at least one of the criteria is based on a constraint that a ratio of the number of points located outside each region to a total number of points in the particular subinterval exceeds a ratio of the number of statistically-outlying points in the at least one dataset to the total number of points in the at least one dataset.

62. (Previously Presented) The storage medium of claim 59, wherein at least one of the at least one predetermined criteria is based on an average distance of a total number of points located in each of the regions to a principal axis of the at least one dataset.

63. (Previously Presented) The system of claim 37, wherein the subintervals are determined based on a dyadic grid division procedure, wherein each particular subinterval of the subintervals comprises a region having a height, wherein the height is determined as a function of the length of the particular subinterval, wherein each of the

statistically-outlying data points is located outside of the region of the particular subinterval with which the statistically-outlying data point is associated, wherein the at least one dataset comprises a total number of points, wherein each particular subinterval comprises a total number of points, and wherein one or more of the at least one predetermined criteria is based on at least one of (i) a portion of the at least one dataset being contained in one of the subintervals, (ii) a predetermined ratio of the statistically-outlying points to the total number of points, (iii) the number of points located within each of the regions being below a predetermined threshold, (iv) a constraint that a ratio of the number of points located outside each of the regions to the total number of points in the particular subinterval exceeds a ratio of the number of statistically-outlying points in the at least one dataset to the total number of points in the at least one dataset, or (v) an average distance of the total number of points located in each of the regions to a principal axis of the at least one dataset.

64. (Previously Presented) The system of claim 37, wherein the subintervals are determined based on a dyadic grid division procedure, wherein each particular subinterval of the subinterval comprises a region having a height, wherein the height is determined as a function of the length of the particular subinterval, wherein each of the statistically-outlying data points is located outside of the region of the particular subinterval to which the statistically-outlying data point is associated, wherein the at least one dataset comprises a total number of points, wherein each subinterval comprises a total number of points, and wherein one or more of the at least one predetermined criteria is based on at least two of (i) a portion of the at least one dataset

being contained in one of the subintervals, (ii) a predetermined ratio of the statistically-outlying points to the total number of points, (iii) the number of points located within each of the regions being below a predetermined threshold, (iv) a constraint that a ratio of the number of points located outside each of the regions to the total number of points in the particular subinterval exceeds a ratio of the number of statistically-outlying points in the at least one dataset to the total number of points in the at least one dataset, or (v) an average distance of the total number of points located in each region to a principal axis of the at least one dataset.